VO or OV: V to *v* or not to *v*

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Abstract:

This article sketches a new analysis of the diachronic development found in many West Germanic languages from a hybrid VO-OV order to a rigid OV or VO order. The discussion departs from the discussions in Struik & Van Kemenade (2020/2022) and Struik & Schoenmakers (to appear) on the diachronic development of English/Dutch, which focus on the role of object shift and information structure. My interpretation of their data will be based on an earlier analysis of the Germanic OV and VO languages in Broekhuis (2008: §2.4; 2011). The main conclusions are the following. First, the change from the historical hybrid VO-OV systems to the rigid OV and VO systems of the present-day languages is due to changing the "setting" [±V-to-*v*] to the more categorical ones [–V-to-*v*] or [+V-to-*v*]. Second, the role of object shift in the diachronic development is modest; it is not involved in the development of the OV-languages at all and involves only the (partial) loss of object shift in the VO-languages (contra Struik et al.). Third, the encoding of the information-structural NEW-GIVEN distinction remains constant in that the interpretation of (un)scrambled nominal objects does not change over time (contra Struik &Schoenmakers).
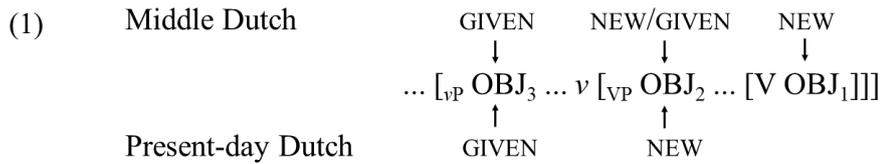
1   Introduction

This article considers the information-structural approach to the VO-OV variation found in the historical stages of the West Germanic languages, initiated in Taylor & Pintzuk (2011/2012) and subsequent work; see Struik (2022: §1.4) for a brief review. It focuses on the more recent contributions to the diachronic development of English/Dutch in Struik & Van Kemenade (2020/2022), Struik & Schoenmakers (to appear), as well as the more general discussion of the VO-OV alternation in the diachronic development of the West Germanic languages in Struik (2022: ch.7). As the joint contributions are included in a slightly modified form as chapters 2-4 in Struik (2022), I will quote them from this work; the abbreviations S&VK and S&S will be used for reference to the joint works with Van Kemenade and Schoenmakers, respectively; S&S has also been published in yet another version as Schoenmakers (2022: ch.6).

The central idea in the works collected in Struik (2022) is that VO-orders arise when nominal objects surface in their base position while OV orders are derived by leftward object shift (or scrambling) across V; cf. Struik (2022: 12). Furthermore, the information-structural distinction between NEW and GIVEN object NPs regulates the VO-OV alternation found in the earlier stages of the West Germanic languages. S&S more specifically claims that the distribution of NEW and GIVEN object NPs is determined by a language-specific rule: this is illustrated by the representations in (1) for Middle and Present-day Dutch. [1]

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[1] The distinction between GIVEN (presuppositional) and NEW (non-presuppositional) object NPs is defined in terms of Komen's (2013) Pentaset guidelines; see S&S (§3) for a very clear illustration of how the labels NEW and GIVEN are assigned in their historical Dutch corpus.

(1)   Middle Dutch

$$\dots [_{vP}\ OBJ_3 \dots v\ [_{VP}\ OBJ_2 \dots [V\ OBJ_1]]]$$

GIVEN   NEW/GIVEN   NEW

Present-day Dutch   GIVEN   NEW

This paper makes use of the data presented in S&VK and S&S but the interpretation of these data will be based on an earlier analysis of the (present-day) Germanic OV and VO languages in Broekhuis (2008: §2.4), according to which the VO-OV alternation is determined by V-to-*v*: rigid VO-languages have obligatory V-to-*v* movement while rigid OV-languages do not have V-to-*v* movement (in non-verb-second contexts). For the diachronic development from a hybrid OV/VO order to a rigid OV or VO order found in many West Germanic languages, this analysis leads to the following provisional conclusions (which will be made more precise):

- The change of the historical hybrid OV/VO systems to the rigid OV and VO systems of the present-day languages is due to changing the "setting" [±V-to-*v*] to the more categorical ones [–V-to-*v*] or [+V-to-*v*].
- The role of object shift in the diachronic development is modest; it is not involved in the development of the OV-languages at all and involves only the (partial) loss of object shift in the VO-languages (contra S&S).
- The encoding of the information-structural NEW-GIVEN distinction remains constant; the interpretation of (un)scrambled nominal objects does not change over time (contra S&S).

The discussion will be phrased in terms of the derivation & evaluation framework as developed in Broekhuis & Dekkers (2000) and Broekhuis (2008), which will be briefly introduced in Section 3.1. Section 2 sets the stage by comparing some background assumptions of the two competing

proposals and by providing the general outline of the organization of the paper.

2   Background assumptions of the two competing analyses

The data set discussed in the body of work collected in Struik (2022) is specifically designed to investigate the word order of nominal objects and main verbs within the *lexical* projection of the main verb (i.e. *v*P), which is given in bold in structure (2).

(2) $[_{CP}$ ... C $[_{IP}$ ... I **$[_{vP}$ ... *v* $[_{VP}$ ... V ...]]]]

The restriction to the *v*P-part of the clause is obtained by using a sample of embedded clauses with one auxiliary, a non-finite main verb and a (non-pronominal) object NP. As the historical stages of the West Germanic languages are like present-day Icelandic in allowing embedded verb-second, the use of an auxiliary ensures that the main verb remains *v*P-internal;[2] since definite pronouns tend to move to some *v*P-external position in the functional domain of the clause, they are excluded from the sample; clausal objects are also excluded because they categorically follow the clause-final main verb(s). The individual studies are based on the assumptions and hypotheses listed in (3) (the page numbers refer to Struik 2022).

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[2] By using constructions with two verbs, the restriction to embedded clauses is in fact superfluous. Dropping it in future work may be desirable as it will considerably enlarge the data set, which will be especially welcome for the study of historical German (not considered in this article); see the description of the available sources in Struik (2022: §5.3; §6.3).

(3) a. Syntactic phrases are spelled-out phonetically in a specifier-head-complement order, as in Kayne (1994), which entails that all clauses are "underlyingly" VO (p.25).

  b. Surface VO-orders arise when nominal objects surface in their base position within VP; OV orders arise when the object surfaces in a derived position to the left of V (p.12).

  c. Information structure (i.e. the distinction between GIVEN and NEW object NPs) regulates the VO-OV alternation found in the earlier stages of the West Germanic languages (p.32).

Furthermore, S&S follows Broekhuis (2008/2011) in assuming that nominal objects can undergo two types of A-movement, which may be involved in the derivation of OV-orders: SHORT OBJECT SHIFT into the local domain of V and REGULAR OBJECT SHIFT into the local domain of *v*. However, they do not follow Broekhuis in assuming that the morphosyntactic triggers of these movements are the gender feature on V and the case feature on *v*, respectively, nor do they provide an alternative account of the empirical fact that leftward object shift has two possible landing sites; cf. Struik (2022: 116).[3] Combined with the hypothesis in (3c) that the surface (or spell-out) position of nominal objects depends on information-structural considerations, distinguishing short and regular object shift (OS) accounts for the fact that nominal objects

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[3] S&S slightly misrepresents the motivation for postulating these two morphosyntactic features: the main reason is that agreement and case are features in the nominal agreement system, thus accounting for the fact that the two forms of object shift are restricted to nominal complements of the verb (i.e. do not apply to PPs or clausal complements). S&S's reservations against the case/agreement distinction is prompted by earlier suggestions that agreement and case are two manifestations of a single agreement relation; they therefore consider the possibility that the case feature "is a more general agreement feature that attracts the object" (p.116). Renaming the case feature provides no gain in understanding.

can be found in the three A-positions OBJ_n in the simplified representations in (4).[4]

(4)   Derivation of VO/OV orders by object shift

    a.   VO-order (no OS): ... $[_{vP} ... v [_{VP} ... [V OBJ_1]]]$

    b.   OV-order (short OS): ... $[_{vP} ... v [_{VP} OBJ_2 ... [V \text{OBJ}_1]]]$

    c.   OV-order (regular OS): ... $[_{vP} OBJ_3 ... v [_{VP} \text{OBJ}_2 ... [V \text{OBJ}_1]]]$

These representations assume that A-movement is optional (i.e. that there are no morphosyntactic EPP/EDGE features forcing movement; see Section 3.1 below) and that the head of the A-chain will be phonetically spelled out (indicated by strikethrough of the lower copies). S&S actually takes the position that A-movement is mandatory and that there is variation in the phonetic spell-out of the A-movement chain (i.e. head, tail or some intermediate link). This difference of view does not appear to affect the upcoming discussion in a crucial way, and I will therefore stand by the original proposal in Broekhuis (2008), as it is in keeping with the widely held position (not adopted in S&S) that there is no direct interaction between the phonetic and semantic side of the grammar.

      The alternative analysis of the VO-OV alternation defended in this article starts from the observation that the two claims in (3b) are at least partly incorrect. The structure in (5) shows that there is in fact no theoretical reason for assuming that object movement into position OBJ_2 excludes a surface VO-

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[4] The terminological distinction between short and regular object shift is adopted from Broekhuis (2008) and is motivated by the fact that regular object shift is the form normally discussed in the literature. The representations in (4) leave the actual landing site of the object open: an outer specifier of VP/vP in the sense of Chomsky (1995a: ch.4) or the specifier of an extended projection of VP/vP in the sense of Grimshaw (1997); Broekhuis (2008/2011) argues in favor of the latter option.

order, as the underlying VO order can be restored by applying V-to-*v* movement.[5]

(5)   ... [$_{vP}$ ... *v*-V [$_{VP}$ OBJ$_2$ ... [~~V OBJ$_1$~~]]].

One empirical argument in favor of claiming that V-to-*v* can restore the VO order can be based on the present-day English (PDE) examples in (6), which show that nominal and clausal objects differ in their placement relative to the VP-adverbs: nominal objects precede such adverbs while object clauses follow them. This suggests that nominal (but not clausal) objects are *obligatorily* moved leftward across such adverbs. If so, claim (3b) is incorrect to the extent that it states that object shift into OBJ$_2$ *necessarily* results in an OV-order; I refer the reader to Johnson (1991) and Lasnik (1999) for more empirical arguments in favor of short object shift in PDE.

(6)   a.   that John told <the story> loudly <*the story>.
      b.   that John told loudly [that he could not come].

We can conclude from this that PDE does not differ from present-day Dutch (PDD) with respect to short object shift; the Dutch examples in (7) make the different distribution of nominal and clausal objects visible by their order relative to the clause-final verb; I refer the reader to Section 5 for more discussion of the role that VP-adverbs play in detecting short object shift.

(7)   a.   dat Jan <het verhaal> vertelde <*het verhaal>.
           that Jan   the story   told
      b.   dat Jan vertelde [dat hij niet kon   komen].
           that Jan told   that he not could come

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[5] Application of V-to-*v* movement in English is standardly assumed in theories that have syntactic verb movement; cf. Chomsky (1995a: ch.4). What may be new to some readers in the analysis that will be presented here is the claim that V-to-*v* does not apply in Germanic OV-languages such as Dutch; cf. Broekhuis (2000).

Observe that the contrast between the English examples in (6) is not an isolated case but is also found in other present-day Germanic VO-languages: nominal objects normally precede the VP-adverbs in the Scandinavian languages (which are all VO). This is clear from the examples from Icelandic, Norwegian, Swedish and Danish found in Sells (2001:143), Christensen (2005:52), Thraínsson (2007: §2.1.6), and Koeneman (2006:80).[6]

Chomsky's (2001:2) uniformity principle now leads to the conclusion that the distinction between OV and VO languages (in the typological sense) is primarily related to V-to-v: OV-languages do not allow V-to-v (unless the verb has to undergo verb-second) while VO-languages require it; see Broekhuis (2008: ch.2) for a more detailed discussion.[7]

(8) a.   OV-languages ([–V-to-v]): ... [$_{vP}$ ... v [$_{VP}$ ... [V ...]]].
     b.   VO-languages ([+V-to–v]): ... [$_{vP}$ ... v-V [$_{VP}$ ... [~~V~~ ...]]].

An important argument in favor of the analysis in (8) is that it immediately accounts for the fact that VO-OV variation does not only affect the relative order of the verb and nominal objects but a whole range of other constituents, including nominal arguments other than direct objects, small-clause

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[6] Some of these examples can also be found in Broekhuis (2008: ch.2), which also includes a discussion of two alternative analyses of the distribution of clausal and nominal objects in (6), which, however, are likewise incompatible with (3b). It should be noted that English is special in that manner adverbs may sometimes precede the full VP (for reasons that I do not fully understand); cf. *John <patiently> explained the problem <patiently>*. Although such cases may turn out to be relevant for our present discussion, I will ignore them in what follows.

[7] The uniformity principle states "In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances". One reviewer objects to applying this methodological guideline, notwithstanding that it is fully consistent with the fruitful research strategy for diachronic investigations in Van Kemenade (1987).

predicates (including verbal particles) and VP-adverbials; see Burridge (1993), Cloutier (2008), Struik (2022: 191) and many others. Assuming variation in V-to-*v* movement eliminates the need to account for these cases separately, although of course an explanation is still needed for the fact that the listed elements tend to occur on the same side of the verb as the direct object. This holds especially for the various types of small-clause predicates, as these are often assumed to be base-generated as the complement of the verb in the structure in (2). I refer to Broekhuis (2008: ch.5) for an account in terms of a general theory of predicate movement; this issue will also come up in Section 4, where this proposal will be shown to cover the aux-VP/VP-aux alternation discussed in S&VK as well.

The introduction of V-to-*v,* in addition to the earlier assumption that objects can –in principle– surface in one of the positions indicated by dots in (8), in effect doubles the possible output structures of the grammar so that we have the six *v*P structures in (9) instead of the three in (4) proposed by Struik et al. The representations in (9) also include the types of adverbial phrases that can be used for diagnosing the two types of object shift: short object shift crosses VP-adverbials like the manner adverb *loudly* in (6), which modify the VP-predicate, while regular object shift crosses the clause-medial (CM) adverbials such as the modal adverb *probably*, which modify complete (tenseless) propositions and thus must take the complete *v*P in their scope; see Broekhuis (2008:§2.4.1; 2011;§5.1) for more detailed discussion.[8]

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[8] Clause-medial adverbials are sometimes also referred to as lower sentence adverbials. The discussion is simplified here in that short object shift does not have to cross the VP-adverbs in the OV-languages. I will ignore this issue here but return to it in Section 5.

(9)   Derivation of VO/OV orders by V-to-v and object shift

a.   VO$_{clause}$ (no OS; [–V-to-v]):

... [$_{vP}$ ... ADJ$_{CM}$ [... v [$_{VP}$ ... ADJ$_{VP}$ [V OBJ$_1$]]]]

a′. VO$_{clause}$ (no OS; [+V-to-v]):

... [$_{vP}$ ... ADJ$_{CM}$ [... v-V [$_{VP}$ ... ADJ$_{VP}$ [~~V~~ OBJ$_1$]]]]

b.   O$_{NP}$V (short OS; [–V-to-v]):

... [$_{vP}$ ... ADJ$_{CM}$ [... v [$_{VP}$ OBJ$_2$ ... ADJ$_{VP}$ [V ~~OBJ$_1$~~]]]]

b′   VO$_{NP}$ (short OS; [+V-to-v]):

... [$_{vP}$ ... ADJ$_{CM}$ [... v-V [$_{VP}$ OBJ$_2$ ... ADJ$_{VP}$ [~~V~~ ~~OBJ$_1$~~]]]]

c.   O$_{NP}$V (regular OS; [–V-to-v]):

... [$_{vP}$ OBJ$_3$ ... ADJ$_{CM}$ [... v [$_{VP}$ ~~OBJ$_2$~~ ... ADJ$_{VP}$ [V ~~OBJ$_1$~~]]]]

c′. O$_{NP}$V (regular OS; [+V-to-v])):

... [$_{vP}$ OBJ$_3$ ... ADJ$_{CM}$ [... v-V [$_{VP}$ ~~OBJ$_2$~~ ... ADJ$_{VP}$ [~~V~~ ~~OBJ$_1$~~]]]]

What I would like to hypothesize now is that the primeless structures are typical for the present-day rigid OV-languages, while the primed ones are typical for the present-day rigid VO-languages. The structures further express the earlier established fact that short object shift is obligatory for nominal objects in all Germanic languages: position OBJ$_1$ can only be occupied by non-nominal arguments, which do not enter in an agreement/case relation with the main verb (see the discussion of the examples in (6)). The alternation between short and regular object shift is sensitive to the NEW-GIVEN distinction, as has repeatedly been claimed for Icelandic and the West-Germanic OV-languages; see Broekhuis (2020; to appear a) for two recent reviews.

Observe that structure (9c′) is not a possible step in the derivation of PDE clauses, whereas it is a possible step in the derivation of Icelandic clauses. This seems related to verb movement: while Emonds (1978) and Pollock (1989) have shown that PDE does not allow V-to-I movement of main verbs, V-to-I movement of main verbs is possible in Icelandic; cf. *Peter* *never* *[$_{vP}$ read this book]* versus *Peter læste* *aldrei* *[$_{vP}$ ~~læste~~ þessa bók]*. The

relevant representations of main clauses with a finite main verb are thus as given in (10).

(10) a. English:

*[$_{TP}$ ... T [$_{vP}$ OBJ$_3$ ... ADJ$_{CM}$ [... *v*-V [$_{VP}$ ~~OBJ~~$_2$ ... ADJ$_{VP}$ [~~V~~ ~~OBJ~~$_1$]]]

b. Icelandic:

[$_{TP}$ ... T-*v*-V [$_{vP}$ OBJ$_3$ ... ADJ$_{CM}$ [... ~~*v*-V~~ [$_{VP}$ ~~OBJ~~$_2$ ... ADJ$_{VP}$ [~~V~~ ~~OBJ~~$_1$]]]

The acceptability contrast in (10), with regular object shift, is the result of a language-specific word-order restriction common to many (but not all) Germanic VO-languages, viz. that A-movement may not affect the underlying order of the verb and its complement. The restriction has traditionally been seen as one of the constituting parts of Holmberg's Generalization; see Holmberg (1986) and much later work. It is worth noting this here, as it will play an important role in the discussion of the diachronic development of English in Section 3.3, more specifically its loss of the syntactic codification of the NEW-GIVEN distinction.

Of course, replacing the inventory of structures in (4) with the one in (9) has major ramifications for the ultimate analysis of the VO-OV alternation found in the various historical stages of the West Germanic languages. This cannot all be discussed in a single article, so I will confine myself to three interrelated issues. Section 3 discusses the codification of the information-structural distinction between GIVEN and NEW objects: while S&S and Struik (2022) conclude that this codification changes quite drastically over time, I will argue that it remains basically constant. Section 4 will then discuss one of Struik's (2022: §7.2.5) main findings namely that, contrary to what is normally assumed, Middle Dutch is more OV-like than Old (and Middle) English and, vice versa, that Old English is more VO-like than Middle Dutch; I will then indicate how this can be captured in the present proposal. Struik's observation is of great importance to my explanation of the fact that historical hybrid OV/VO-languages can turn into rigid OV-languages of the PDD-type

or rigid VO-languages of the PDE-type. Although this in fact comprises most of my analysis, Section 5 closes with a discussion of one of the main conclusions in S&S, viz. that the codification of NEW definite objects in Dutch changes in connection to the decline in VO-orders. This effect is revealed by the simultaneous increase in adverb-object orders for NEW definite objects: since the relative order of clause-final verbs and objects is no longer indicative of the information-structural status of the object as GIVEN or NEW, adverbs have to step in to fulfill the former function of the clause-final verbs. I will argue instead that the observed change in adverb placement is not related to information structure at all but reflects a more general restriction on (vacuous) movement: cf. the effect-on-output condition in Chomsky (2001).

3   The codification of NEW/GIVEN objects in the history of Germanic

This section compares the competing analyses of the VO-OV alternation resulting from the two sets of representations in (4) and (9) postulated as input for the mapping of syntactic structure and information structure in (the diachronic stages of) the West Germanic languages. The description of the diachronic development of the Dutch VO-OV alternation in S&S will serve as the starting point of the discussion. First, however, Section 3.1 briefly introduces the derivation-and-evaluation (D&E) framework, which appears eminently suited to explain the alternation in the individual languages as well as between different languages. Section 3.2 continues by showing that S&S's conclusion that the codification of Dutch NEW objects changes over time can in principle be formalized within the D&E framework on the basis of candidate set in (4). However, Section 3.3 will argue that the larger candidate set in (9) allows us to abandon S&S's conclusion in favor of the conclusion that the codification of Dutch NEW/GIVEN definite objects remains essentially constant over time.

3.1   The derivation-and-evaluation framework

The D&E framework is based on the idea that the minimalist framework (MP) and optimality theory (OT) can be seen as complementary parts of a more general model of grammar: (i) the computational system C_{HL} takes some syntactic input (e.g. a numeration) and creates a candidate set of syntactic structures satisfying certain well-formedness conditions; the OT-evaluator takes the candidate set as input and selects one or more candidates as the optimal output on the basis of a language-specific ranking of otherwise universal constraints.[9]
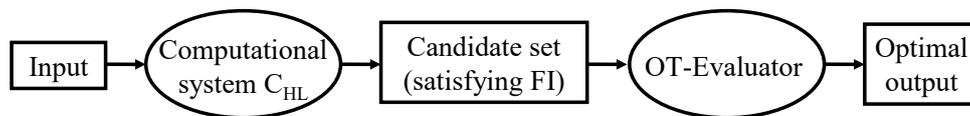

Figure 1: The architecture of grammar

Broekhuis (2008: ch.1) has argued that some version of the model in Figure 1 is also assumed in MP and OT, although the nature of the generator and evaluator are not equally clearly defined in these two frameworks. MP has focused mainly on the generative device, despite the fact that some filtering device was postulated right from the start:

> "The language L thus generates three relevant sets of derivations: the
> set D of derivations, a subset D_C of convergent derivations of D, and a

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[9] This section is loosely based on the discussion of the D&E framework in Broekhuis & Woolford (2013: §5.3); I refer the reader to this review article for a more extensive plea for the architecture of grammar in Figure 1. The amount of syntactic work in OT-theory is still modest: for useful introductions to the theory as well as representative samples of its syntactic application, we refer the reader to the paper collections in Archangeli & Langendoen (1997), Dekkers et al. (2000), Müller & Sternefeld (2001), Broekhuis & Vogel (2013), and Legendre et al. (2016).

subset D_A of admissible derivations of D. [Full Interpretation] determines D_C, and the economy conditions select D_A. [...] D_A is a subset of D_C". (Chomsky 1995a: 220)

The filtering device has been endowed with various names in the respective stages of MP (such as global economy, bare-output, interface and effect-on-output conditions), but relatively little work has been devoted to developing a coherent theory of it. The situation in OT is the reverse: much work has been devoted to the substantive content of the filtering device (i.e. the violable constraints and their language-specific rankings) but virtually no attention has been paid to the generator. Relating the two systems, as in Figure 1, has various advantages. By postulating that the generator produces a structured set of derivations that satisfy certain inviolable well-formedness conditions, the size of the candidate set can be considerably reduced, with the concomitant effect that we may expect the universal set of violable constraints also to be relatively small and structured. By postulating that the evaluator selects an optimal candidate from a larger candidate set, it is no longer needed to ensure that the candidate set produced by C_{HL} is as small as possible, preferably a singleton. This makes it possible to eliminate the minimalist EPP/EDGE features, which have no function other than to reduce the candidate set by making movement obligatory, and to replace them by the universally available (generalized) constraint EPP(F) in (11).

(11)   EPP(F): probe F attracts its goal.
   a.   EPP(case): an unvalued case feature attracts its goal.
   b.   EPP(φ): unvalued φ-features (person, number, gender) attract their goal.
   c.   EPP(*v*): unvalued verbal feature of *v* attracts its goal
   d.   etc.

These EPP-constraints interact in an OT-fashion with the economy constraint *MOVE (or STAY), which prohibits movement. For instance, claiming that *MOVE outranks EPP(case) is more or less equivalent to saying that no EPP-

feature is assigned to *v*, while claiming that EPP(case) outranks *MOVE is more or less equivalent to saying that *v* is assigned an EPP-feature. In order to facilitate the discussion, we will adapt the weak/strong terminology from Chomsky (1995a) and henceforth refer to these rankings as, respectively, the WEAK and STRONG RANKING of EPP(case). Note in passing that A >> B means A outranks B, while {A, B} means the ranking of A and B cannot be determined on basis of available evidence or is not relevant for determining the optimal output.

(12) a. Weak ranking: *MOVE >> EPP(F)

　　 b. Strong ranking: EPP(F) >> *MOVE

　　 c. Unknown/irrelevant ranking: {EPP(F), *MOVE}

This system allows us to make various language-specific selections from the three competing structures in candidate set (4), repeated here as (13). Candidate (13a) without object shift will be selected as the optimal one if *MOVE outranks the two EPP-constraints EPP(person) and EPP(case); candidate (13b) with short object shift will be selected as the optimal one if EPP(person) outranks *MOVE; candidate (13c) with regular object shift will be selected as the optimal one if EPP(person) and EPP(case) both outrank *MOVE.

(13) a. *MOVE >> {EPP(person), EPP(case)}:

　　　　 VO-order: ... [$_{vP}$ ... *v* [$_{VP}$ ... [V OBJ$_1$]]]

　　 b. EPP(person) >> *MOVE >> EPP(case):

　　　　 OV-order: ... [$_{vP}$ ... *v* [$_{VP}$ OBJ$_2$ ... [V ~~OBJ$_1$~~]]]

　　 c. EPP(person) >> EPP(case) >> *Move:

　　　　 OV-order: ... [$_{vP}$ OBJ$_3$ ... *v* [$_{VP}$ ~~OBJ$_2$~~ ... [V ~~OBJ$_1$~~]]]

We will provisionally assume that the relative ranking of EPP(person) and EPP(case) is universal: EPP(person) >> EPP(case). This is due to intervention of properties of C$_{HL}$, viz. the generally accepted assumption that C$_{HL}$ obeys the (non-violable) condition SHORTEST STEPS, movement of an object into position OBJ$_3$ must proceed via OBJ$_2$. On the assumption that the relative

ranking of constraints is established on the basis of *positive* evidence (due to restrictions on language acquisition), the universal ranking EPP(person) >> EPP(case) will follow because there are languages (such as PDE) that do have short object shift but no regular object shift, while there are no languages for which the inverse can be unequivocally established. [10]

The postulation of EPP-constraints may not look like a great improvement over the postulation of the minimalist EPP/EDGE features at first sight, but one important advantage of the OT-formalization of the strength property is that it allows us to *override* the weak and strong rankings: languages with a weak ranking of EPP(case) may still allow object shift when *MOVE is outranked by some constraint A that favors it (cf. (14a)), and languages with a strong ranking of EPP(case) may still disallow object shift when EPP(case) is outranked by some constraint B that disfavors it (cf. (14b)). This results in a linguistic system that allows more word-order variation than standard MP.

(14) a. A >> *MOVE >> EPP(F):

if A favors movement, the weak ranking of EPP(F) is overruled

b. B >> EPP(F) >> *MOVE:

if B disfavors movement, the strong ranking of EPP(F) is overruled

The constraints A and B will typically not be related to the computational system but to the articulatory-perceptual or the conceptual-intentional system, for which reason I will refer to them as interface constraints. The interface

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[10] There is a debate in OT about the nature of constraints: some suppose that they are innate and that all the language-leaning child has to do is to determine their ranking while others assume that the constraints are functionally motivated and developed by generalizing over the primary linguistic data available to the child; cf. Lestrade et al. (2016). The first position is adopted here, as will be clear from the fact that the constraints in (11) are formulated in terms of primitive notions from MP.

constraints account for the fact that object shift can be sensitive to non-syntactic factors.[11]

Broekhuis (2008) adopted the three interface constraints in (15) in his analysis of Scandinavian object shift. The constraint D-PRONOUN disfavors phonologically reduced definite pronouns in *v*P-internal position; it is involved in accounting for the fact that such pronouns sometimes can be moved leftward even if leftward object movement of non-pronominal NPs is excluded.[12] The constraint ALIGNFOCUS is taken from Costa (1998) and plays a role in formalizing the well-known observation that new information tends to occur in the right periphery of the clause. Finally, H-COMPL plays a role in formalizing one of the basic ingredients of Holmberg's Generalization, viz. that Scandinavian object shift cannot cross main verbs.

(15) a.   D-PRONOUN:

a reduced definite pronoun must be *v*P-external (i.e. $*[_{vP} ... pron_{[+def]} ...]$).

b.   ALIGNFOCUS:

the prosodically unmarked focus is the rightmost constituent in its clause.

c.   H-COMPL:

a head precedes all terminals dominated by its complement

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[11] This means that the D&E framework is part of a growing body of work that maintains that the acceptability of the syntactic output is not a purely syntactic matter but is conditioned by output conditions imposed by other cognitive components of the grammar: see Chomsky (2001), Struckmeier (2017), Haider (2020) and Francis (2022) for more pleas in favor of the general idea with varying theoretical implementations.

[12] We can assume that definite pronouns move via position OBJ_3 into some A′-position higher in the functional domain of the clause; cf. Broekhuis & Corver (2016:§14.4). I will not digress on this issue here as leftward object pronoun movement will not play a prominent role in the discussion.

It is important to note that the constraints introduced so far have not been invented to serve our present purposes: all of them have predecessors in the theoretical literature.[13] This seems obvious for the economy constraint *MOVE and the syntactic EPP-constraints in (11) but it also holds for the interface constraints in (15): D-PRONOUN, for instance, can be traced to the mapping hypothesis in Diesing and Jelinek (1995), ALIGNFOCUS reflects the GIVEN-before-NEW generalization which is pervasive in the literature, and H-COMPL is a major component of Holmberg's Generalization. A crucial difference between the restrictions adopted here and their predecessors is that the former are not inviolable conditions but violable constraints. The small set of interface constraints in (15) suffices for our present discussion (although we will appeal to one more constraint in Section 5).

Now we have everything in place to illustrate how the weak and strong rankings in (12) can be overridden by appealing to the interface constraints in (15). We will do this on the basis of Scandinavian object shift, which is now generally assumed to target position OBJ$_3$ and so to be triggered by the case feature on v; cf. Broekhuis (to appear a). Languages with the weak ranking *MOVE >> EPP(case) are expected not to allow object shift. Example (16a) suggests that Danish might be such a language, although example (16b) seems to contradict this by showing that pronominal objects can shift; note that the angled brackets indicate alternative placements of the object. This apparent contradiction is solved by assuming that the weak ranking of EPP(case) is overruled by the fact that *MOVE is in its turn outranked by interface

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[13] The appendix in Broekhuis (2008) shows that this holds for the full inventory of constraints used in its analysis of various core properties of Germanic word order, including the placement of (i) nominal/clausal arguments (ii) finite verbs, (iii) VP/sentence adverbs, (iv) predicative complements (including verbal particles), and (v) participial main verbs (verb clustering).

constraint D-PRONOUN, which favors the pronominal object in (16b) to be *v*P-external.

(16)   Danish: D-PRONOUN >> *MOVE >> EPP(case)

    a.   Hvorfor læste Peter <*artiklen> aldrig <artiklen>?

          Why   read   Peter   the.article never

    b.   Hvorfor læste Peter <den> aldrig <*den>?

          why   read   Peter   it   never

This shows that we can readily account for the fact that languages differ in the extent to which they exhibit regular object shift: languages like Icelandic allow object shift both with pronominal and lexical NPs, due to the fact that they have a strong ranking of EPP(case); languages like Danish have the ranking D-PRONOUN >> *MOVE >> EPP(case) and therefore allow object shift of pronouns only and languages like Finnish-Swedish do not have any form of regular object shift because *MOVE outranks both EPP(case) and D-PRONOUN. This gives rise to the parameterization in Figure 2.
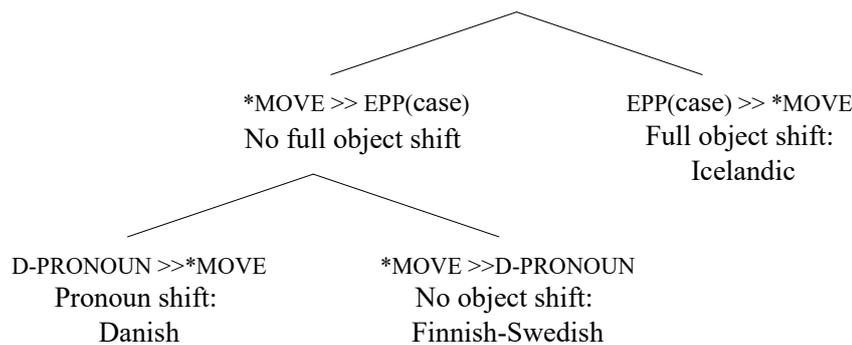

                         *MOVE >> EPP(case)   EPP(case) >> *MOVE
                          No full object shift   Full object shift:
                                                    Icelandic

D-PRONOUN >>*MOVE   *MOVE >>D-PRONOUN
    Pronoun shift: No object shift:
        Danish   Finnish-Swedish

Figure 2: Macro-parameterization of languages with respect to (regular) OS

The strong ranking EPP(case) >> *MOVE in Icelandic leads us to expect that object shift must apply. However, the two examples in (17), in which the angled brackets again indicate alternative placements of the object, show that this only holds for non-pronominal objects that are GIVEN; object shift is blocked when they convey new information. This can easily be accounted for by assuming that ALIGNFOCUS in (15b) outranks EPP(case), which effectively

blocks object shift if the object is part of the (NEW-information) focus of the clause.

(17)   Icelandic: ALIGNFOCUS >> EPP(case) >> *MOVE

    a. Jón keypti   <*bókina> ekki <bókina>.   [*bókina* ⊂ focus]

    b. Jón keypti   <bókina>   ekki <*bókina>.   [*bókina* ⊂ presupposition]

       Jón bought   the book   not

We conclude with a final remark concerning the constraint H-COMPL. This constraint is part of a set of word-order constraints that favor preservation of the underlying word order, such as the VO order found in (13a). When we assume that H-COMPL outranks the constraint D-PRONOUN in Danish or the constraint EPP(case) in Icelandic, we predict that regular object shift cannot apply in complex verb constructions, as the non-finite main verb remains within its lexical projection in such a case. This derives one of the main ingredients of Holmberg's generalization, viz. that Scandinavian object shift cannot cross a *v*P-internal main verb, as is illustrated in (18).

(18) a.   Danish: H-COMPL >> D-PRONOUN >> *MOVE >> EPP(case)

      Hvorfor har Peter <*den> aldrig læst <den>?

      why   has Peter   it   never   read

    b.   Icelandic: H-COMPL >> EPP(case) >> *MOVE

      Jón hefur <*bókina> ekki keypt <bókina>.

      Jón has   the book   not   bought

    This subsection has briefly illustrated how the D&E framework may account for differences in object shift between the Scandinavian languages, as well as for certain language-specific restrictions on object shift like the sensitivity to nominal type (pronominal versus non-pronominal) or information-structure status (NEW versus GIVEN) and word order (Holmberg's generalization). We now have sufficient background to evaluate S&S's proposal concerning the codification of information structure from the perspective of this framework.

3.2   Information structure: leftward object shift without V-to-*v*

S&S investigates the interplay between (i) the word order of nominal objects and clause-final verbs (i.e. VO/OV orders) in the various diachronic stages of Dutch and (ii) the codification of the information-structural status of direct object NPs as (discourse) NEW or GIVEN. We have already seen that S&S assumes that nominal objects can undergo two types of A-movement: short object shift into the local domain of V and regular object shift into the local domain of *v*. On the assumption that these A-movements are optional in the sense that the actual location of the object depends on language-specific restrictions, direct objects may surface in one of the three A-positions indicated by OBJ_n in the simplified representation in (19).

(19) $[_{vP} OBJ_3 ... v [_{VP} OBJ_2 ... [V OBJ_1]]]$

S&S discusses the diachronic development of Dutch from a hybrid OV/VO language into a rigid OV-language: it argues that this is due to the fact that in historical Dutch objects can surface in all three object positions in (19), while they must occur in one of the two shifted positions in PDD. They further argue on the basis of the relative position of the main verb and NEW/GIVEN nominal objects that this change is accompanied by a change in the way the information-structural status of the object is expressed, as indicated in Table (20) based on S&S; cf. Struik (2022: 121).[14]

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[14] The characterization of the PDD situation in Table (20) is more or less the one found in standard works on Dutch scrambling like Verhagen (1986) and Broekhuis (2008). However, it has been challenged on various occasions, including Schoenmakers (2022). Up to this point, these attempts do not hold water, for the reasons extensively discussed in Broekhuis (to appear b).

(20) Expression of givenness/newness of the direct object in Dutch (S&S)

	OBJ$_3$	v	OBJ$_2$	V	OBJ$_1$
Historical Dutch	GIVEN		**NEW/GIVEN**		NEW
Present-day Dutch	GIVEN		NEW		—

I have added the part in bold to indicate that position OBJ$_2$ has a hybrid status in the older stages of the language, in the sense that both NEW and GIVEN object NPs may occur there; the data in S&S show that nearly 30% of the NEW objects already occurred preverbally in the oldest stage of the language. This does not affect the main issue here that, according to S&S, Dutch changes from a language in which NEW object NPs preferably appear after the verb in clause-final position into a rigid OV-language, in which they obligatorily appear in front of it. This means that clause-final verbs can no longer signal the newness of the object in PDD; S&S hypothesizes that this has led to the situation that the information-structural status of the object is signaled by its position relative to the adverbs in the clause (i.e. by scrambling or, more precisely, regular object shift).

The remainder of this section will evaluate S&S's proposal from the perspective of the D&E approach to object shift outlined in Section 3.1. On the assumption that short and regular object shift are triggered by the person feature on V and the accusative case feature on v, respectively, the actual surface realization of the object depends on the language-specific ordering of the constraints EPP(person), EPP(case) and *MOVE. This was already illustrated in (13), repeated here as (21).

(21) a. *MOVE >> {EPP(person), EPP(case)}:
          VO-order: ... [$_{vP}$ ... v [$_{VP}$ ... [V OBJ$_1$]]]

      b. EPP(person) >> *MOVE >> EPP(case):
          OV-order: ... [$_{vP}$ ... v [$_{VP}$ OBJ$_2$ ... [V ~~OBJ$_1$~~]]]

      c. EPP(person) >> EPP(case) >> *MOVE:
          OV-order: ... [$_{vP}$ OBJ$_3$ ... v [$_{VP}$ ~~OBJ$_2$~~ ... [V ~~OBJ$_1$~~]]]

For our present discussion, it is important to recall that ALIGNFOCUS can overrule the strong rankings of EPP(person) and EPP(person) in (21b&c). The four constraints under discussion can be ranked in 24 ways. However, not all rankings will result in different languages: for instance, the 12 rankings in which ALIGNFOCUS is outranked by *MOVE will not exhibit an informational-structural effect on object placement, as ALIGNFOCUS is simply a more specific version of *MOVE disfavoring movement of NEW objects. On the generally accepted (additional) assumption that C_{HL} obeys the (non-violable) condition SHORTEST STEPS, movement of an object into position OBJ$_3$ cannot skip its potential landing site OBJ$_2$: this means that we can also ignore all cases in which EPP(person) outranks EPP(case). This leaves us with only 6 rankings; since we have already seen that overruling the strong ranking of an EPP-constraint requires the ranking ALIGNFOCUS >> EPP(F) >> *MOVE, it entails that we end up with no more than the three language-specific rankings in (22).

(22) a. Type 1: EPP(person) >> ALIGNFOCUS >> EPP(case) >> *MOVE

  b. Type 2: ALIGNFOCUS >> EPP(person) >> EPP(case) >> *MOVE

  c. Type 3: ALIGNFOCUS >> EPP(person) >> *MOVE >> EPP(case)

The rankings in (22) correspond to the word orders given in Table (23); the em-dash indicates that the object cannot surface in the indicated position regardless of its information-structural status.

(23) Givenness/newness of the nominal direct object in object shift languages

	OBJ$_3$	*v*	OBJ$_2$	V	OBJ$_1$
TYPE 1	GIVEN		NEW		—
TYPE 2	GIVEN		—		NEW
TYPE 3	—		GIVEN		NEW

A comparison of Table (20) and Table (23) makes clear that the proposal in S&S is theoretically sound from the perspective of the D&E approach to object movement outlined in Section 3.1. The diachronic development of

Dutch involves a change from Type 2 to Type 1. This can be easily accounted for by assuming that the diachronic change involves a reranking of the constraints ALIGNFOCUS and EPP(person). The (hypothesized) prehistorical stage in (24a) has the ranking ALIGNFOCUS >> EPP(person), while PDD has the inverse ranking of these constraints; cf. (24c). This change proceeds via a stage represented by historical Dutch in (24b), in which the two rankings are equally ranked or in competition (indicated by <>): EPP(person) <> ALIGNFOCUS. Observe that the competition between constraint rankings is a D&E alternative to the double-base hypothesis in Pintzuk (1999).

(24) a.   Prehistorical Dutch: ALIGNFOCUS >> EPP(person) >> EPP(case) >> *MOVE

     b.   Historical Dutch: EPP(person) <> ALIGNFOCUS >> EPP(case) >> *MOVE

     c.   Present-day Dutch: EPP(person) >> ALIGNFOCUS >> EPP(case) >> *MOVE

The conclusion that S&S's proposal is theoretically sound does not necessarily entail that it is the correct one: Section 2.1. has shown that there are empirical reasons for assuming that nominal objects do not remain in their base position in the Germanic languages, which implies that there are in fact no Germanic languages of Type 2 or 3. We can add to this that ranking (24b) postulated for historical Dutch, which effectively unifies the set of optimal structures in languages of type 1 and 2, predicts that GIVEN objects cannot occur in OBJ_2, contrary to what is shown in S&S.

3.3   Information structure: leftward object shift plus V-to-*v*

The analysis in Table (23) conflicts with Broekhuis' (2008: §2.4) claim that short object shift is usually mandatory for nominal objects in today's Germanic languages and, I would like to add, in all the historical stages of these languages as well. Evidence for this claim is based on the fact that nominal and clausal objects differ in their distribution, as is illustrated again for English and Dutch in (25). On the assumption that both nominal and clausal direct objects are base-generated as complements of V, we can explain the difference between the primeless and primed example by appealing to the
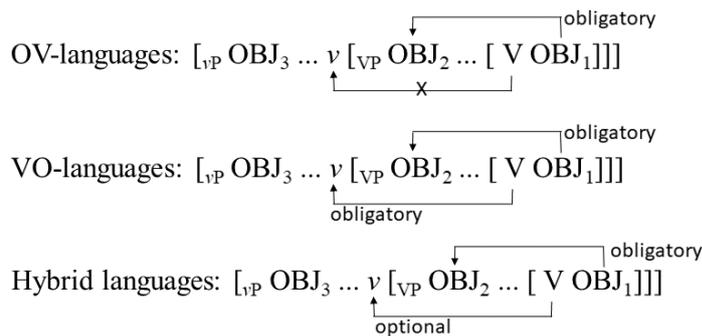
standard assumption that A-movement only affects noun phrases: the case and agreement features on the verb (i.e. V and *v*) can trigger leftward A-movement of nominal but not of clausal objects.

(25) a.   that John told <the story> clearly <*the story>.

    a′.   that John told clearly [that he could not come].

    b.   dat Jan <het verhaal> vertelde <*het verhaal>.

         that Jan   the story   told

    b′. dat Jan vertelde [dat hij niet kon   komen].

         that Jan told   that he not could come

The examples in (25) make it clear that short object shift of nominal objects across V is mandatory and as a result, that the distinction between (rigid) OV and VO languages is not related to short object shift, as in the analysis in Table (23). Instead, the analysis needs to appeal to V-to-*v* movement to undo the order change caused by short object shift; while rigid OV-languages do not allow V-to-*v* (in non-verb-second contexts[15]), this movement is obligatory in rigid VO-languages, as illustrated in (26). The historical West Germanic languages can again be assumed to have competing grammars in the sense that they allow both options.

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[15] If C_{HL} obeys the (non-violable) condition SHORTEST STEPS, verb second (i.e. V-to-I/C movement) will also force V-to-*v* in the OV-languages; see the discussion of this condition below example (13) in Section 3.1.

(26)   Derivation of VO/OV orders with nominal objects:

OV-languages: $[_{vP}$ OBJ$_3$ ... v $[_{VP}$ OBJ$_2$ ... $[$ V OBJ$_1]]]$ obligatory (×)

VO-languages: $[_{vP}$ OBJ$_3$ ... v $[_{VP}$ OBJ$_2$ ... $[$ V OBJ$_1]]]$ obligatory / obligatory

Hybrid languages: $[_{vP}$ OBJ$_3$ ... v $[_{VP}$ OBJ$_2$ ... $[$ V OBJ$_1]]]$ obligatory / optional

The observation that short nominal object shift applies in all Germanic languages can be explained by assuming that they all have the strong ranking of EPP(person) >> *MOVE. The fact that this movement is normally obligatory entails that EPP(person) outranks ALIGNFOCUS, as in (27a). The difference in V-to-v movement can be accounted for by appealing to the constraint EPP(v) in (11c), which states that the unvalued verbal feature of v attracts its goal, the verbal stem V. Rigid OV languages have the weak ranking *MOVE >> EPP(v) in (27b), which favors that V remains in its base position, while rigid VO-languages have the strong ranking EPP(v) >> *MOVE in in (27b′), which favors V-to-v movement. The hybrid OV/VO nature of the historical stages of the West Germanic languages can be accounted for by assuming that the strong and the weak ranking of EPP(v) are in competition: *MOVE <> EPP(v).

(27) a.   EPP(person) >> {ALIGNFOCUS, *MOVE]

          ⇒ obligatory short nominal object shift

     b.   *MOVE >> EPP(v)

          ⇒ no V-to-v (i.e. OV-order)

     b′. EPP(v) >> *MOVE

          ⇒ V-to-v (i.e. restoration of VO-order)

Up to this point the discussion predicts that the partial derivations in (28) may play a role in the derivation of Germanic clauses. The constraint ranking in (27a) accounts for the fact that direct object clauses remain in-situ, as in the

(a)-examples in (28), while nominal objects obligatorily undergo short object shift, as in the (b)-examples. The choice between the strong and weak ranking of EPP(v) in (27b&b′) determines whether or not the inversion of the main verb and the object resulting from short nominal object shift will be voided by V-to-v. The continuation of the derivations depends on whether or not regular object shift takes place. As regular object shift is triggered by the accusative case feature of v, we can immediately conclude that clausal objects will remain in their base positions, as in the partial (a)-structures in (28). Application of regular nominal object shift will derive the (c)-structures from the (b)-structures.

(28)　　　Derivation of VO/OV orders in Germanic by V-to-v and object shift

　　a.　VO$_{clause}$ (no OS; [–V-to-v]):

　　　　... [$_{vP}$ ... v [$_{VP}$ ... ADJ$_{VP}$ [V Clause$_1$]]]

　　a′.　VO$_{clause}$ (no OS; [+V-to-v]):

　　　　... [$_{vP}$ ... v-V [$_{VP}$ ... ADJ$_{VP}$ [~~V~~ Clause$_1$]]]

　　b.　O$_{NP}$V (short OS; [–V-to-v]):

　　　　... [$_{vP}$ ... v [$_{VP}$ NP$_2$ ... ADJ$_{VP}$ [V ~~NP~~$_1$]]]

　　b′.　VO$_{NP}$ (short OS; [+V-to-v]):

　　　　... [$_{vP}$ ... v-V [$_{VP}$ NP$_2$ ... ADJ$_{VP}$ [~~V~~ ~~NP~~$_1$]]]

　　c.　O$_{NP}$V (regular OS; [–V-to-v]):

　　　　... [$_{vP}$ NP$_3$ ... v [$_{VP}$ ~~NP~~$_2$ ... ADJ$_{VP}$ [V ~~NP~~$_1$]]]

　　c′.　O$_{NP}$V (regular OS; [+V-to-v]):

　　　　... [$_{vP}$ NP$_3$ ... v-V [$_{VP}$ ~~NP~~$_2$ ... ADJ$_{VP}$ [~~V~~ ~~NP~~$_1$]]]

The choice between the (b) and the (c)-structures depends on the ranking of the constraint EPP(case). We have to consider the three rankings in (29). Ranking (29a) is weak and thus disfavors regular nominal object shift while the two rankings in (29b,c) are strong and thus favor regular nominal object shift. The relative placement of ALIGNFOCUS determines whether regular object shift applies categorically or whether it is sensitive to the NEW-GIVEN

distinction; if it outranks EPP(case), regular object shift of NEW objects will be blocked.

(29) a.   *MOVE >> EPP(case)

⇒ no regular nominal object shift

b.   EPP(case) >> {*MOVE, ALIGNFOCUS}

⇒ obligatory regular nominal object shift

c.   ALIGNFOCUS >> EPP(case) *MOVE

⇒ regular nominal object shift depends on information structure

The WEAK RANKING of EPP(case) in (29a) favors the (b)-examples in (28) over the (c)-examples. For the OV-languages, this would lead to a language without regular object shift, i.e. with the object in a fixed position in the middle field of the clause (viz. OBJ$_2$). As far as I know, there are no such languages in the Germanic family in Europe, so that we can provisionally conclude that all Germanic OV-languages have a strong ranking of EPP(case).[16] On the other hand, the weak ranking of EPP(case) seems a perfect fit for English, as the main verb remains within vP and normally immediately precedes the accusative object; we will see shortly, however, that there may be a more attractive alternative. The provisional conclusion is that weak ranking (29a) is a potential option for some Germanic VO-languages (like PDE) but not for the Germanic OV-languages (in Europe).

The STRONG RANKING of EPP(case) in (29b) triggers obligatory regular object shift and therefore favors the (c)-examples in (28) over the (b)-examples. This ranking is unlikely for the Germanic VO-languages because it would result in an obligatory OV order when the main verb remains vP-internal. For the OV-languages, this ranking results in an OV language with

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[16] Of course, this is not an empirical necessity: present-day Pennsylvania German may have lost regular object shift. If so, this OV-language may have a weak ranking of EPP(case). See Putnam (2007) for a discussion of scrambling in this non-European Germanic OV-language (as well as some potential other cases).

obligatory regular object shift, i.e. with the object in a fixed position in the middle field of the clause (viz. OBJ$_3$), and is therefore excluded for the same reason as the weak ranking of EPP(case) in (29a). The conclusion must therefore be that the ranking (29b) does not occur at all in the Germanic languages.

The STRONG RANKING of EPP(case) in (29c) allows both the (b) and the (c)-structures in (28) but with a difference in meaning: the (b)-structures are only possible with NEW object NPs, while the (c)-structures require that the object NPs be GIVEN. This ranking seems appropriate for the West Germanic OV-languages, as is clear from the fact this description precisely matches the one given for PDD in Table (20) above, based on S&S. It seems that the ranking in (29c) is also available for at least some VO-languages, as can be readily illustrated by the examples in (30). These show that Yiddish behaves just like Dutch, apart from the fact that it is VO-like: non-pronominal object NPs may follow the non-finite verb but GIVEN definite objects are moved leftward across a clause-medial adverb such as *mistome* 'probably'; see Diesing (1997), Putnam (2007:§1.4.4.) and Broekhuis (2020) for more discussion of Yiddish.

(30) a. Maks hot <dos bukh> mistome   nit   geleyent <dos bukh>.
         Maks has   the book   probably not read
     b. Maks hot <*a bukh> mistome   nit   geleyent <a bukh>.
         Maks has   a book   probably not read
     c. Maks hot <undz>   gekent <*undz>.
         Maks has   us   known

Furthermore, Icelandic allows the two structures in (28b′&c′), with the predicted difference in meaning. However, this holds only in clauses with V-to-I movement of the main verb, as in (31a): regular object shift is not possible in perfect-tense constructions such as (31b), in which the main verb remains *v*P-internal. To account for this, we need to appeal to the constraint H-COMPL

in (15c), which favors maintaining the "underlying" VO-order in the surface realization of the sentence. If Icelandic differs from Yiddish in that H-COMPL outranks EPP(case), regular object shift of GIVEN object NPs will be allowed in simple clauses such as (31a) but not in complex verb constructions such as (31b) because in the latter case the shift results in a surface OV-order. It is important to note the NEW-GIVEN distinction can be expressed by word order in (31a) but not in (31b): the postverbal object in the latter case can be either GIVEN or NEW; see Broekhuis (2008: §3.2) for references and detailed discussion.

(31) a.   Jón keypti   <bókina>   ekki   <bókina>.
           Jón bought   the book not
           'Jón didn't buy the book.'
     b.   Jón hefur <*bókina>   ekki   keypt <bókina>.
           Jón has   the.book   not   bought
           'Jón hasn't bought the book.'

This account of the difference between the two Icelandic examples in (31) sheds new light on our earlier provisional conclusion that PDE has a weak ranking of EPP(case). Because English main verbs are normally assumed to remain *v*P-internal, an alternative analysis might be that PDE is just like Icelandic in that it has ranking (29c): H-COMP will then block regular object shift across the *v*P-internal main verb. This analysis is preferable to the earlier one in the light of the fact that the historical stages of English may have had the partial ranking in (29c), as this would explain the high proportion of GIVEN objects preceding the main verb in Old and Middle English (resp. 74.8% and 51.0%); cf. Struik (2022:§7.2.1).

The suggested reanalysis of PDE leads to the conclusion that all (stages of the) West Germanic languages had the partial ranking in (29c).[17] We can

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[17] This also holds for Icelandic but not for the Mainland Scandinavian languages, as these do have V-to-I but categorically reject regular object shift of non-pronominal

now summarize the conclusions of the preceding discussion pertaining to the movement operations applying within *v*P in West Germanic as in (32) and (33).

(32)   Uniform constraint rankings in West Germanic:

    a.   *MOVE

       ⇒ No clausal object shift

    b.   EPP(person) >> {ALIGNFOCUS, *MOVE]

       ⇒ obligatory short nominal object shift

    c.   ALIGNFOCUS >> EPP(case) >> *MOVE

       ⇒ regular nominal object shift is sensitive to the NEW-GIVEN distinction

(33)   Varying constraint rankings in West Germanic:

    a.   *MOVE >> EPP(*v*) **or** EPP(*v*) >> *MOVE:

       ± V-to-*v* (i.e. the typological VO-OV distinction)

    b.   H-COMP >> EPP(case) >> *MOVE **or** EPP(case) >> {H-COMP, *MOVE}:

       Regular object shift can(not) cross a *v*P-internal main verb

The variation in constraint rankings in (33) gives rise to the three language types in Table (34). Note that languages like PDE without regular nominal object shift are unable to express the NEW-GIVEN distinction by means of word order; this is in keeping with what is found in Icelandic complex-verb constructions such as (31b), which do not allow regular object shift either.

(34) Verb/object placement in the West Germanic *v*P

Main types	OBJ$_3$	*v*	OBJ$_2$	V	OBJ$_1$
1: OV (Dutch)	GIVEN	*v*	NEW	V	clause
2: VO (Yiddish)	GIVEN	*v*-V	NEW	t_V	clause
3: VO (PDE)	—	*v*-V	GIVEN/NEW	t_V	clause

object NPs. They are analyzed as having the weak ranking *MOVE >> EPP(case) in Broekhuis (2008: §3.2).

3.4   Conclusion

This section has investigated S&S's claim that the VO-OV distinction between the (rigid) West Germanic languages is related to object shift: on the assumption that languages have the underlying vP structure with three potential object positions in $[_{vP}$ OBJ$_3$ ... v $[_{VP}$ OBJ$_2$ ... [V OBJ$_1$]]], S&S assumes that VO-languages have the nominal object in position OBJ$_1$, while OV-languages arise by movement of the object into the position OBJ$_2$ or OBJ$_3$. Furthermore, S&S claims that languages may differ in how they express the NEW-GIVEN distinction; see Table (20) for two of the options they consider possible. The analysis proposed in this section assumes that the VO-OV distinction is essentially due to a difference in V-to-v: VO languages have it while OV languages do not. The role of object movement is less important in this respect: short nominal object shift applies in all West Germanic languages while regular nominal object shift tends to disappear in the VO-languages; the latter does not result in a *change* of the way in which the NEW-GIVEN distinction is expressed by word order but in the *elimination* of this option.

4   The VO-OV alternation in (historical) West Germanic

Section 3 focused on the present-day Germanic languages, which can be characterized typologically as rigid VO or OV-languages: English and the Scandinavian languages have a strict VO-order while continental West Germanic languages like Dutch and German have a strict OV-order (if we abstract from V-to-I/C movement, i.e. verb-second). A notable exception is Yiddish, which is a VO-language in which the VO-order can be inverted by regular object shift when the object is GIVEN. The historical West Germanic languages discussed in Struik (2022) are hybrid in the sense that they show mixed OV-VO behavior. This section discusses the syntactic distribution of NEW/GIVEN objects in such languages and is organized as follows: Section 4.1 opens with a brief discussion of the D&E version of grammar competition;

Section 4.2 discusses one of Struik's (2022) main findings, viz. that the historical West Germanic languages differ in their degree of VO/OV, and shows how this can be modulated within the present D&E proposal; Section 4.3 concludes with the D&E account of the transition from the historical hybrid systems to the rigid ones found in the present-day languages.

4.1   Competing grammars in the D&E framework

The studies collected in Struik are concerned with languages that are hybrid, i.e. not rigidly OV or VO in the typological sense. This can be explained by assuming that we are dealing with grammar competition in some form; cf. Pintzuk (1999). A reasonable assumption within the D&E framework is that grammar competition involves competition among the constraint rankings in (33) distinguishing the three main languages types in Table (34). I will start from the assumption that in historical West Germanic the ranking of *MOVE and EPP(*v*) is not fixed, as expressed by the convention <>, with the meaning that the ranking can be read in either direction.

(35)   Historical West Germanic: *MOVE <> EPP(*v*):
          truly optional V-to-*v* movement

The state of affairs described by (35) is of course a gross simplification: we are in fact dealing with language variation in the sense that there may be *up to* three main groups of speakers: speakers with a rigid VO grammar, speakers with a rigid OV-grammar and speakers that allow both options.

(36)   Historical West Germanic (language variation):
   a.   Speakers with a strict OV-grammar: *MOVE >> EPP(*v*)
   b.   Speakers allowing both the OV and the VO order: *MOVE <> EPP(*v*)
   c.   Speakers with a strict VO grammar: EPP(*v*) >> *MOVE

If the groups are not properly balanced (in economical/political power, social status, number, etc.), this may lead to the replacement of the hybrid system in (35) by one of the more rigid ones (resulting in the commonly assumed S-

shaped curves of language change). As the D&E framework is a formal-linguistic theory, it has nothing to say about the forces driving the actual language change, i.e. the present proposal can at best say something about *possible* language changes.

4.2   Degrees of VO/OV-ishness

That the hybrid West Germanic languages may differ in the relative proportions of the three groups of speakers listed in (36) entails that not all hybrid languages are equal, and may thus account for one of the main conclusions in Struik (2022: §7.2.5), viz. that the historical West Germanic languages differ in their degree of "VO/OV-ishness" (based on S&VK's findings for historical English and S&S's findings for Middle Dutch). Struik argues that Old and Middle English are more VO-like in that the VO-order generally does not have information-structural implications, in the sense that the object may be either NEW or GIVEN (just like in PDE), whereas the OV-order is more or less restricted to GIVEN objects (and becomes extremely rare from 1350 onwards). Dutch, on the other hand, is more OV-like in that it is the OV-order that normally does not have information-structural implications, in the sense that the object may be either NEW or GIVEN (just like in PDD), while the VO-order is more or less restricted to NEW objects (and completely disappears around 1700). This is shown by the frequency scores in (37) and (38), based on Tables 1-3 from Struik (2022:§7.2).

(37)   NEW objects in OV-structures
   a.   OE: 5.2%; ME 0%
   b.   MD: 43.4%

(38)   GIVEN objects in OV-structures
   a.   OE: 74,8%; ME: 51% (and disappears around 1350)
   b.   MD: 88.2% (and reaches 100% around 1700)

Struik concludes from the fact that historical English is more VO-like and historical Dutch is more OV-like that English requires NEW objects to stay in

their base position whereas Dutch optionally allows them to undergo (short) object shift. However, the same can be expressed by saying that V-to-*v* is more dominant in historical English than in historical Dutch; the distribution of NEW and GIVEN objects in historical Dutch and English can then be described by saying that the historical Dutch is a hybrid 1/2-language while the latter is a hybrid 2/3-language in the sense of the typology in Table (34), as shown in Table (39). We can make this more concrete by saying that a hybrid 1/2-language is a language with speakers belonging predominantly to the groups in (36a) and (36b) while a hybrid 2/3 language is a language with speakers belonging predominantly to the groups in (36b) and (36c).

(39) Verb/object placement in the West Germanic *v*P (revised)

Main types	OBJ$_3$	*v*	OBJ$_2$	V	OBJ$_1$	Hybrid types	
1: OV (Dutch)	GIVEN	*v*	NEW	V	clause	MD	
2: VO (Yiddish)	GIVEN	*v*-V	NEW	t_V	clause		OE/
3: VO (PDE)	—	*v*-V	GIVEN/NEW	t_V	clause		eME

The data presented in Tables 1-3 from Struik (2022:§7.2) also provide detailed information on the relative orders found in complex verb constructions, i.e. constructions with an auxiliary, a non-finite main verb and an object. The findings seems to provide independent evidence in favor of the analysis in Table (39), as this analysis has certain ramifications for the order of auxiliaries and their verbal complement. To see this, recall from the discussion in Section 2 that the OV/VO nature of a language is not only revealed by the relative order of the verb and its object, but also by the relative order of the verb and its predicative complements, such as various small-clause complements of the main verb (including verbal particles) and verbal complements of auxiliaries. Since the accusative object of the clause functions as the logical subject of the predicative complement of the main verb, Broekhuis (2008: ch.5) has argued on the basis of various phenomena in a wide variety of languages that the phi-features of the object are also

visible on the predicative phrases; consequently, such phrases may also undergo short object shift (while stranding or pied piping the object). Broekhuis applies this predicate-movement analysis also to complex-verb constructions by assuming that internal arguments function as logical subjects of the verbal stem V (which is clearly visible as participle agreement in various languages) so that such VP-phrases may also undergo short object shift.[18]

The predicate-movement analysis of aux-V inversion of course requires that the auxiliary verb has unvalued person features just like V: since we have established that West Germanic has a strong ranking of EPP(person), this means that short object shift will apply both in the VP and in the *aux*P domain. It will trigger short object shift of the nominal object into the local domain of V as well as short object shift of O *or* VP into the local domain of the auxiliary, leading to the two representations (i) and (ii) in (40a). On the earlier assumption that OV and VO languages differ in the application of V-to-*v* movement, we will ultimately derive the four representations in (40).[19]

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[18] The predicate movement analysis of aux-V inversion exhibits certain similarities to the analysis of aux-V inversion in S&VK, which is phrased in terms of optional pied piping by the scrambled object; cf. Struik (2022:§3.4).

[19] For reasons of simplicity, I have assumed that both the auxiliary and the main verb are associated with a light verb *v*; it is clear, however, that the nature of "*v*" may be different for finite and the various types of non-finite verbs (participles and infinitives). This does not really affect the discussion since Broekhuis (2008) has claimed that the all EPP-constraints related to the verbal features can be subsumed under a single constraint *STRAY FEATURE that favors the amalgamation with the verbal stem. Note further that (embedded) V-to-I movement may also derive the surface orders in (40b).

(40) a.   No V-to-*v*:

(i) O-aux-V: [$_{v}$P ... *v* [$_{auxP}$ O ... aux [$_{v}$P .... *v* [$_{VP}$ *t*$_O$ ... [V *t*$_O$]]]]]

(ii) OV-aux: [$_{v}$P ... *v* [$_{auxP}$ [$_{v}$P .... *v* [$_{VP}$ O ... [V *t*$_O$]] ... aux *t*$_{v}$P]]

b.   V-to-*v*:

(iii) aux-O-V: [$_{v}$P ... *v*+aux [$_{auxP}$ O ... *t*$_{aux}$ [$_{v}$P .... *v*+V [$_{VP}$ *t*$_O$ ... [*t*$_V$ *t*$_O$]]]]]

(iv) aux-VO: [$_{v}$P ... *v*+aux [$_{auxP}$ [$_{v}$P .... *v*+V [$_{VP}$ O ... [*t*$_V$ *t*$_O$]] ... aux *t*$_{v}$P]]

The two remaining logically possible orders in (41) cannot be derived.

(41) a.   *VO-aux

b.   *V-aux-O

The reason for the ungrammaticality of the V-O-aux order in (41a) is that the V-O order indicates a strong ranking of EPP(*v*) (i.e. EPP(*v*) >> *MOVE). Consequently, the auxiliary must also undergo V-to-*v*, which results in cancelling the effect of short object shift of the VP (resulting in the aux-VO) order. This in effect derives the Final-over-Final Constraint discussed in Biberauer et al. (2009) from the independently motivated constraint EPP(*v*), without having to appeal to any additional stipulations. This is a welcome result, considering that the D&E framework aims at making such descriptive "surface filters" superfluous.

(42)   The Final-over-Final Constraint (FOFC): *[$_{β'}$ [$_{αP}$ α γP] β]:
          If α is a head-initial phrase and β is a categorially non-distinct phrase
          immediately dominating α, then β must be head-initial. If α is a head-
          final phrase, and β is a phrase immediately dominating α, then β can be
          head-initial or head-final.

That the order in (41b) cannot be derived may be surprising, given that the data set collected in Struik (2022) contains a fair number of V-aux-O examples (especially with NEW objects). However, it squares with the fact that *rigid* OV-languages such as PDD impose an absolute ban on this order in non-contrastive contexts: the order in (41b) only arises in PDD in the case of listings and in very elevated poetic style. Chomsky's Uniformity Principle

(cf. note 7) therefore suggests the V-aux-O cases should be analyzed in an alternative way, e.g. as Heavy-NP shift along the lines in Kayne (1998: §13.3.5) and later work. I will not take a stand on this issue here.

Now, let us turn to the question as to whether the relative order of aux and V support the conclusion that historical English is more VO-like while historical Dutch is more OV-like. In a rigid VO-language like PDE, we do not see any V-aux orders at all. This is expected, as the reordering of the auxiliary and the verb by short object shift of the VP will be quashed by obligatory aux-to-*v*. This predicts that more VO-like languages will have fewer V-aux orders. If so, the frequencies listed in (43) support the claim that historical English is more VO-like than historical Dutch.[20]

(43)   V-aux structures
   a. OE: 21.9%; ME 4.5%
   b. MD: 61.9%

The claim that historical Dutch is more OV-like than historical English predicts that it has fewer cases in which the auxiliary comes first *within vP* than historical English. The frequency scores in (44) show that this is clearly borne out by the Tables 1-3 from Struik (2022:§7.2). Note that the actual scores of cases with the auxiliary within *v*P may in fact be slightly lower, as the counts may include cases with embedded verb-second of the auxiliary.

(44)   aux-V-O structures
   a. OE: 73.7%; ME 92.2%
   b. MD: 14.6%

On the hypothesis that predicative complements (including verbal particles) of verbs can also undergo short object shift, we predict that we will find

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[20] If constructions with V-aux-O orders need to be given special treatment, they are not relevant for the present discussion. Frequency scores with exclusion of the V-aux-O order are still telling: OE: 17.2%; ME; 1.5%; MD: 51.7%.

patterns very similar to those in (43) and (44) for such elements: this cannot be established on the basis of the studies collected in Struik but seems to be supported by Cloutier (2008).

4.3   Transition from the hybrid to a rigid VO/OV systems

A crucial factor in evaluating the viability of any analysis of the VO-OV alternation is whether it allows for a natural account of the diachronic development of the West Germanic languages. This subsection will show that the analysis in (39), repeated here as (45), passes the test.

(45) Verb/object placement in the West Germanic *v*P (revised)

Main types	OBJ$_3$	*v*	OBJ$_2$	V	OBJ$_1$	Hybrid types	
1: OV (Dutch)	GIVEN	*v*	NEW	V	clause	MD	
2: VO (Yiddish)	GIVEN	*v*-V	NEW	t_V	clause		OE/
3: VO (PDE)	—	*v*-V	GIVEN/NEW	t_V	clause		eME

We again adopt our earlier assumption that the three main language types all have the constraint rankings in (32), repeated here as (46): (i) they do not have object shift of clauses, (ii) the have obligatory short object shift of nominal objects as well as (iii) regular object shift sensitive to information structure, i.e. for GIVEN nominal objects only.

(46)   Uniform constraint rankings in West Germanic:
   a.   *MOVE
        ⇒ No clausal object shift
   b.   EPP(person) >> {ALIGNFOCUS, *MOVE]
        ⇒ obligatory short nominal object shift
   c.   ALIGNFOCUS >> EPP(case) >> *MOVE
        ⇒ regular nominal object is sensitive to the NEW-GIVEN distinction

The variation between the three language types is based on the options given in (33), repeated here as (47).

(47)   Competing constraint rankings in West Germanic

a.   *MOVE >> EPP(v) **or** EPP(v) >> *MOVE:

       ± V-to-v (i.e. the typological VO-OV distinction)

b.   H-COMP >> EPP(case) >> *MOVE **or** EPP(case) >> {H-COMP, *MOVE}:

       Regular object shift can(not) cross a vP-internal main verb

The difference between type 1 and 2 depends on whether or not it has V-to-v movement. A transition from type 2 to type 1 (or vice versa) therefore involves only the reranking of the constraints EPP(v) and *MOVE; this yields a language of the Middle Dutch type in the transition period. The difference between type 2 and 3 depends on whether or not the order of the verb and its complement obeys Holmberg's Generalization. A transition from type 2 to type 3 (or vice versa) involves only the reranking of the constraints EPP(case) and H-COMP; this yields a language of the Old/early Middle English type in the transition period. Note that because the two changes are independent of each other, they can in principle overlap. If so, they may affect each other indirectly; for instance, the change from type 1 to type 2 results in an increasing frequency of VO orders, which may support a change from type 2 to type 3. I believe that this brief sketch of the diachronic development of the West Germanic languages shows that the analysis in (45) passes the viability test with flying colors.

4.4   Conclusion

The analysis proposed in this section provides an alternative view on the diachronic development of the West Germanic languages described in Struik (2022). The main findings (all crucially different from the ones found in Struik et al.) are listed here:

- The change of the historical hybrid VO/OV systems into the rigid OV and VO systems found in present-day languages is due to changing the earlier "setting" [±V-to-v] to the more categorial ones [–V-to-v] or [+V-to-v]; cf. Broekhuis (2008: §2.4). It is accounted for formally by

assuming the resetting of ranking MOVE ◇ EPP(*v*) found in the historical stages of the West Germanic languages to MOVE ≫ EPP(*v*) and EPP(*v*) ≫ *MOVE, respectively.

- The role of object shift in the diachronic development is modest; it is not involved in the development of the OV-languages at all and involves only the (sometimes partial) loss of *regular* object shift in the VO-languages. This is formally accounted for by assuming the resetting of the ranking EPP(case) ≫ H-COMP to H-COMP ≫ EPP(case).

- The encoding of the information-structural NEW-GIVEN distinction remains constant over time. Position OBJ$_3$ in representation (2) is reserved for GIVEN object NPs (or the trace of an A′-moved object). Position OBJ$_2$ is reserved for NEW nominal objects, <u>unless</u> regular object shift is blocked by some language-specific restriction: in that case, there is no information-structural restriction on the object NP in position OBJ$_2$, which can thus be either GIVEN or NEW; see Chomsky (2001) and Broekhuis (2000; 2008) for two different implementations of this observation. Nominal objects cannot surface in position OBJ$_1$.

This concludes the discussion of our alternative analysis of the diachronic development of the historical hybrid VO/OV systems into the more rigid OV and VO systems found in the present-day languages. However, we still need to discuss one more point, namely that the decrease of VO-orders goes hand in hand with an increase in adverb-object orders for NEW definite objects, as S&S presents this as an important argument for the information-structural approach to the diachronic VO-OV variation.

5   The placement of NEW definite objects in OV languages

This section concludes with a discussion of S&S's finding that the decrease of VO-orders triggers an increase in adverb-object (AO) orders in preverbal position for NEW definite objects. S&S advance this as an important argument in favor of the analysis of the diachronic development of Dutch presented in

Table (20), repeated here as (48). This section offers an alternative account of this negative correlation.

(48) Expression of givenness/newness of the direct object in Dutch (S&S)

	OBJ$_3$	v	OBJ$_2$	V	OBJ$_1$
Historical Dutch	GIVEN		NEW/GIVEN		NEW
Present-day Dutch	GIVEN		NEW		—

The negative correlation between OV and scrambling of NEW objects across adverbs is visualized in Figure 3, taken from S&S. Scrambling is measured in terms of the frequency of the object-adverb (OA) order: while GIVEN objects tend to occur in the "scrambled" OA order in all historical stages of the language, NEW objects tend to occur more often in the "unscrambled" AO order as the language becomes more OV-like.
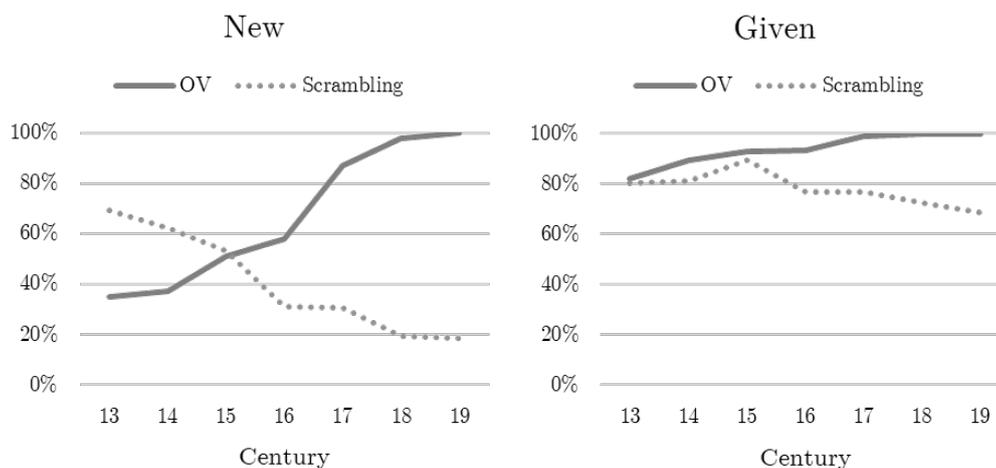
Figure 3: Development of NEW and GIVEN objects in terms of scrambling and OV/VO-variation

S&S claims that this is related to the codification of the NEW-GIVEN distinction: in MD objects are marked as NEW by their position relative to the clause-final verb(s) but in PDD this is no longer possible since NEW objects

categorically precede such verbs. This is where the adverbs jump in: they are increasingly used for marking the definite object as NEW.

Note in passing that S&S does not specify the nature of the adverbs involved: because NEW definite objects are expected to follow the clause-medial adverbs categorically, the increase of the AO order must be due to a decrease of short object shift of NEW objects across the VP-adverbs. This is confirmed by the distribution of NEW definite objects in PDE and PDD in (49): see Broekhuis (2008:§2.4.1; 2011:§5), which S&S adopts as the starting point for its formal analysis of the fact that short object shift may but need not cross VP-adverbs. The difference between OV and VO languages with respect to relative placement of VP-adverbs and NEW definite objects is illustrated again in (49); clause-medial adverbials are added to ensure that we are not dealing with regular object shift.

(49) a.   that John probably$_{CM}$ reads <the book> carefully$_{VP}$ <*the book>.
      b.   dat Jan waarschijnlijk$_{CM}$ <het boek> zorgvuldig$_{VP}$ <het boek> leest.
            that Jan probably   the books   carefully   reads

Broekhuis' (2008:§2.4.1; 2011:§5) account of this contrast appeals to the violable constraint NO VACUOUS MOVEMENT (NOVACM), which favors visible movement in the resulting structure; cf. Chomsky's (1986:§9) vacuous movement hypothesis and Chomsky's (2001) effect-on-output condition. Since short object shift crosses the clause-final verb in the Dutch examples in (49b), crossing the adverb becomes optional (unless this is favored by some other constraint) since it is not needed to satisfy NOVACM, while crossing the adverb is mandatory in the case of the English (49a), as there is no other means to satisfy NOVACM; see the references above for the formal implementation of this proposal. This analysis provides a plausible alternative for the observed negative correlation between OV and short object shift of NEW definite objects across the VP-adverbs in the historical Dutch data provided in S&S. It is in fact preferable to S&S's analysis in Table (48), for

the by now familiar reason that the latter is inconsistent with the empirical finding that short object shift is compulsory in all Germanic languages.

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